

REMARKS

Claims 1-8 and 26 are pending in the present application. By the present amendment, claim 2 has been canceled without prejudice or disclaimer and claims 1, 6 and 26 have been amended.

Claim 1 stands rejected as anticipated by Forthmann, Harcuba, and Jope, and as unpatentable over Forthmann in view of Davis or Olson, and Harcuba in view of Davis or Olson. Claim 1 has been amended to recite a die for use with a trim press for cutting a thermoformed plastic article from a sheet of thermoformable plastic. The press includes a die build up plate that is mounted to a first platen and a striker plate that is mounted to a second platen. During operation, the trim press moves the first platen that includes the die build up plate such that the trim press travels between a load position in which a cutting edge is spaced from the striker plate and a cutting position in which the cutting edge confronts the striker plate. During operation the thermoformable plastic rests upon the striker plate. A knife element is connected to the die build up plate that includes a cutting edge for severing the thermoformable plastic sheet when the knife element confronts the striker plate. A band heater is adhered to the knife element about a substantial portion of its perimeter for heating the knife element.

Applicant's representative fails to find each of the elements recited in amended claim 1 in either Forthmann, Harcuba, or Jope. For example, applicant's representative cannot find a band heater that is adhered to a knife element in any of these references. The addition of Davis or Olson does not cure the deficiency. Applicant's representative cannot find a band heater that is adhered to a knife element in either of those references, in fact Olson does not show a separate heater at all, but rather appears to rely on resistance heat created by current that is passed through the cutting blade. Further, applicant's representative cannot find a heater that is mounted on the moving half of a die/striker plate combination in Jope. Applicant's representative submits that providing a band heater that is adhered to a knife element rather than relying on conduction of heat through a platen as is shown in Forthmann, Harcuba, and Davis permits better control of temperature by placing the heat source in such close proximity to the cutting edge. In the present office action with respect to claim 2, the Examiner cited Obara as teaching attaching a heating element to a knife element. Applicant's representative submits that it

is not possible from the schematic drawings in Obara to discern whether a band heater that is adhered to the knife element is taught by Obara. Further, Obara does not cure the deficiencies of the other references in that Obara appears to shown a heater on the non-moving component of the cutting die. For at least these reasons, claim 1 and its depending claims 3-8 and 26 are in condition for allowance.

Claim 6 has been rejected as unpatentable over Harcuba in view of Davis and Giovannone. Claim 6 has been amended to recite, in addition to the elements of amended claim 1: a die board moveably mounted to the die build up plate that is moveable within a range of positions along a first plane generally parallel to the sheet of thermoformable plastic and defined by the die build up plate in which the knife element is fixed to the die board. A die location pilot feature is connected to the die board that engages a registration feature associated with the plastic article such that when the trim press is in the cutting position the registration feature co-acts with the location pilot to move the die board relative to the die build up plate along the first plane such that the knife element is placed in a predetermined cutting alignment with respect to the plastic article.

Applicant's representative cannot find a teaching or suggestion of all of the elements of amended claim 6 in the cited patents. In particular, neither Davis or Giovannone teaches or suggests a die plate that is slid within a plane parallel to the thermoplastic sheet into alignment by a registration feature associated with the plastic article presently being cut. Rather, in Giovannone the thermoformable plastic is moved into alignment (see Column 6, lines 50-60) and in Davis, the die plate is not moved parallel to the material being cut but rather perpendicular to same to expose the cutting edge (Columns 3-4). For at least these reasons, claim 6 and its depending claims 7-8 are in condition for allowance.

Claim 26 has been rejected as unpatentable over Harcuba in view of Davis and Giovannone. Claim 26 has been amended to recite, in addition to the elements of amended claim 1: a die board mounted to the die build up plate in which the knife element is fixed to the die board and a die location pilot connected to the die board. The die location pilot engages a registration feature on the sheet of thermoformable plastic that is associated with the plastic article and separate from the plastic article. When the trim press is in the cutting position the registration feature co-acts with the location pilot

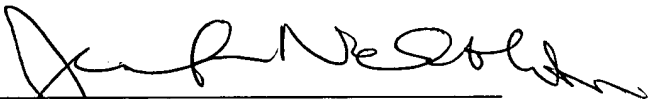
to move the plastic article relative to the die build up plate such that the knife element is placed in a predetermined cutting alignment with respect to the plastic article.

Applicant's representative cannot find a teaching or suggestion of all of the elements of amended claim 26 in the cited patents. In particular, neither Davis or Giovannone teaches or suggests a die location pilot that engages a registration feature on the sheet of thermoformable plastic that is associated with the plastic article and separate from the plastic article. Rather, in Giovannone the thermoformable plastic article being cut is moved into alignment (see Column 6, lines 50-60) and in Davis, the thermoformable plastic is not moved into alignment, but rather the cutting blade is exposed (Columns 3-4). For at least these reasons, claim 26 is in condition for allowance.

In view of the foregoing, claims 1, 3-8, and 26 are in condition for allowance. A favorable response to this amendment in the form of a Notice of Allowance is hereby solicited. If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 23-0630 for any additional fees required under 37 C.F.R. § 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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